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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/712,422	11/13/2003	Mahmoud M. Abdel-Monem	P05844US01	9957

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DES MOINES, IA 50309-2721

EXAMINER

OH, TAYLOR V

ART UNIT	PAPER NUMBER
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1625

DATE MAILED: 10/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/712,422

Applicant(s)

ABDEL-MONEM ET AL.

Examiner

Taylor Victor Oh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 2 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-2 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

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Applicant's arguments with respect to claims 1 and 2 have been considered but are moot in view of the new ground(s) of rejection.

The Status of Claims

Claims 1-2 are pending.

Claims 1-2 have been rejected.

DETAILED ACTION

1. Claims 1-2 have been under consideration.

Priority

2. It is noted that the application is a division of 10/272,382 filed on 10/16/2002.

Drawings

3. None.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-2 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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In claim 1 , the phrase " a small but nutritional supplementation effective amount" is recited. The expression is vague and indefinite because the terms " a small" and "effective amount" do not state how small the effective amount can be effective in the claim. Therefore, an appropriate correction is required.

Claim Rejections - 35 USC § 103

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

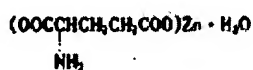
1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 1-2 are rejected under 35 U.S.C. 103(a) as obvious over Li et al (Guangdong Weiliang Yuansu Kexue, 2001).

Li et al teaches the followings:

Zinc is one of the essential trace elements in the human body and a key element for maintaining normal body metabolism. Zinc deficiency is a common phenomenon. According to several surveys on child nutritional conditions conducted in China, about 26%-27% of the children showed a zinc deficiency; zinc deficient symptoms were also found in adults and seniors in some areas. Zinc deficiency in children adversely affects intelligence development and growth [1], and zinc deficiency in adults and seniors affects normal metabolism and reduces the immune system, resulting in the onset of disease.

A 1×10^{-3} mol/L⁻¹ solution (using H₂O as solvent) of the complex was prepared from the product, and the molar conductivity of the zinc glutamate was found to be 84.25 S·cm²/mol⁻¹, suggesting that it was a 1:1 complex. Combining the analytical result in Table 1, the composition was validated as follows:



The instant invention, however, differs from the prior art in that the prior art compound has a trace of water.

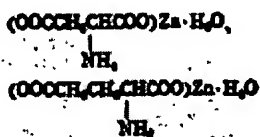
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Even so, the well-known case law says that a dry formulation is not patentable over a wet formulation. In re Nelson, 97 F. 2d 601 (C.C.P.A. 19__). Therefore, it would have been obvious to the skilled artisan in the art to be motivated to change from the wet formulation to the dry formulation in order to reduce the water-contamination in the desired product. This is because such a modification to be successful and feasible as the guidance of need for developing scientific research of nutritional trace element (see page 1, lines 23-24) shown in the prior art.

5. Claims 1-2 are rejected under 35 U.S.C. 103(a) as obvious over Zhang et al (Huaxue Shijie (1997), 38(2), p.82-84).

Zhang et al teaches a product synthesized from an amino acid and zinc has synergistic effects beneficial to the human body, such as the synthesized solid compounds of zinc aspartate and zinc glutamate (see page 1, a middle paragraph, lines 9-13).

Table 1 shows the carbon, hydrogen, and nitrogen analytical results of the amino acid zinc compounds. As can be seen from the table, the compositions of the compounds were as follows:



Both of the aforementioned two amino acid zinc compounds were white powders, which were water soluble but were insoluble in methane.

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Table 1 C, H, N analytical results and electroconductivity measurement results of amino acid zinc compounds

① 化合物	C			H			N			Zn			⑥ 浓度	⑦ 电导率
	理论值	测定值	电导率	理论值	测定值	电导率	理论值	测定值	电导率	理论值	测定值	电导率		
② 天冬氨酸	39.43	39.97	8.37	5.77	5.54	0.54	20.37	20.17	1.000×10 ⁻³ M				85.07	
② 谷氨酸	39.43	39.97	8.37	5.77	5.54	0.54	20.37	20.17	1.000×10 ⁻³ M				83.67	

- Key:
- 1 Compound
 - 2 Zinc aspartate
 - 3 Zinc glutamate
 - 3 Theoretical value
 - 4 Measured value
 - 5 Measurement of electroconductivity
 - 6 Concentration of the solution
 - 7 Molar electroconductivity

Water was used as the solvent to prepare a compound solution with a concentration of 1×10^{-3} M. The measured molar electroconductivity of zinc aspartate was $85.07 \text{ S.cm}^2\text{.mol}^{-1}$. The molar electroconductivity of zinc L-glutamate was $83.67 \text{ S.cm}^2\text{.mol}^{-1}$ (see Table 1). This meant that both of them were 1:1 compounds.

The instant invention, however, differs from the prior art in that the prior art compound has a trace of water.

Even so, the reference does offer the guidance that the deposited was dried in a vacuum dryer and was then finely ground and weighed (see page 2, lines 1-2). Furthermore, the well-known case law says that a dry formulation is not patentable over a wet formulation. In re Nelson, 97 F. 2d 601 (C.C.P.A. 19__). Therefore, it would have been obvious to the skilled artisan in the art to be motivated to change from the wet formulation to the dry formulation in order to reduce the water-contamination in the desired product. This is because such a modification to be successful and feasible as the guidance of need for developing dry nutritional trace element (see page 2, lines 1-2) shown in the prior art.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Taylor Victor Oh whose telephone number is 571-272-0689. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas McKenzie can be reached on 571-272-0670. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Taylor Victor Oh, MSD,LAC
Primary Examiner
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*** 10/13/06